

II. REMARKS

Status of the Claims

Claims 4-8,11,12, and 23-27 are amended. Claims 1-12 are presented for further consideration.

Summary of the Office Action

Claims 1 and 7 stand rejected under 35USC103(a) on the basis of the cited reference Lazar, U.S. Patent No. 5,818,389, in view of the reference Sugai, et al, U.S. Patent No. 5,196,720. Claims 3-5, and 9-11, stand rejected under 35USC103(a) based on the reference Lazar in view of the cited reference Sugai in further view of the reference Jagger et al, U.S. Patent No. 6,807,405. The Examiner is respectfully requested to reconsider his rejection in view of the above amendments and the following remarks. Claims 2,6,8, and 12 are indicated to contain patentable subject matter if written in independent form.

Discussion of the Cited Reference

The Examiner relies on the reference Lazar as primary support for the rejection based on obviousness. The Examiner has indicated that the system of Lazar includes a "burst clamp" in the form of a low noise amplifier (label 16, figure 1) and then ascribes its function to the following passage of the background in the cited reference:

"Saturation interference is caused by any sufficiently strong signal at any frequency which overdrives the input low noise amplifier or a limiter device intended to clamp the signal at a level below that which can damage equipment. The diversity of possible sources of interference increases the difficulty in determining causes of GPS outages."

The above passaged is gratuitous description of saturation interference and is not directed at the amplifier 16 of the system of Lazar. The Examiner's indicates that amplifier 16 is analogous to the burst clamp of the subject application is not supported by the reference. The function of amplifier 16 is described as follows:

"The amplifier 16 is included to compensate for attenuation due to the attenuators, splitters, and any coaxial cable line loss. The amplifier 16 is typically contained in an antenna housing of the antenna 10. The omni antenna 10 is typically mounted in a fixed position pointing up to track the communication signals from the GPS constellation satellites."

There is no mention of clamping the signal to a lower level. The amplifier 16 is not the "limiter device" in which the Examiner relies. In any event the amplifier 16 is not coupled at its output to the spectrum analyzer and is not connected to a feed back loop that includes an automatic gain control. It is clear from this that the system of Lazar cannot operate in the manner of the system of this invention.

The purpose of the system of Lazar is to obtain the direction of the source of interference, in particular in a GPS, receiver. This purpose is stated over and over again throughout the cited reference. In order to accomplish this purpose, the signals from multiple antenna must be combined, analyzed and processed by a computer. The operation of the system of Lazar is described in the following excerpt from the cited reference, in column 5, lines 16-35:

"The interference detection system operates by combining the communication signals from the GPS constellation with directional signal from a plurality of angular directions. The combined signal from the combiner 20 is received simultaneously by the GPS receivers 30 and 32 for both narrow-band C/A-type signals and wide-band P-type signals and by the spectrum measurement equipment .

34 and 36. The directional signals from the rotating directional antenna 12 is added to the communication signal from the omni-directional antenna 10. An increase in interference, that is, a decrease in the communication signal-to-noise ratio, is correlated with the direction of the directional antenna 12 as indicated by the direction interface 39 indicating the direction toward the source of an interfering signal. The spectrum of the interfering signal in the communication signal band may then be recorded and potentially matched to known spectra to identify the source of interference. The final result is directional information and interference signal spectra information that can be used to determine the geographical origin and nature of the source of interference."

The cited reference does not teach all that the Examiner has attributed to it. Applicant submits that the deficiencies of Lazar are not remedied by combination with the teachings of Sugai or Jagger.

Examiner relies on the combined teachings of Lazar and Sugai with respect to claims 1 and 7. The reference Sugai describes a integrated circuit device for removing narrow band interference. The device is a multi-layer device having at least a silicon substrate and a piezoelectric film, input transducers, output transducers, and gate electrodes all formed on the piezoelectric film (column 1, lines 50-55). The operation of the basic element is described as follows:

"The AISF system of FIG. 4 operates as follows. The input signal is converted into surface acoustic waves by the input transducers 17. The bias shift amount (voltage signal) of each of the second pn diode arrays 20 is monitored, and accordingly, a bias control circuit 21 controls the bias voltage of the associated first pn diode for propagation control." (column , lines)

In figure 6 of Sugai, there is shown a feed back loop to an automatic gain control. The Examiner likens the AISF to the amplifier 16 of Lazar and concludes that applicant claimed invention is obvious. Yet the function of the amplifier 16 of Lazar is not described, as the Examiner would like, namely as a

limiter device. The position of the Examiner is based on an unsupported assumption and therefore, the likening of the amplifier 16 of Lazar to the AISF of Sugai is not supported.

Further, the AISF is a complicated semiconductor element. Its teachings are not applicable to the circuitry of Lazar. The teaching of Sugai does not suggest such a combination nor does the reference Lazar. The AISF is an application specific semiconductor circuit. It is not intended to be dismantled and parts applied to entirely different circuit elements. The combination of teachings therefore does not support the Examiner's position.

The Issue of Obviousness

It is well settled that in order to establish a prima facie case for obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, without reference to the disclosure of this application.

Applicant submits that the above described deficiencies of the primary reference Lazar are not remedied by the proposed combination with the teaching of the reference Sugai. The combined references do not, therefore, support a prima-facie case of obviousness. The modification of the teachings of Sugai or Jagger, in order to obtain the invention, as described in the claims submitted herein, would not have been obvious to one skilled in the art.

It does not appear that the Examiner has considered the claims as a whole but has dismantled the claims and pursued a search for the

individual features. It is well settled that "the actual determination of the issue requires an evaluation in the light of the findings in those inquiries of the obviousness of the claimed invention as whole, not merely the differences between the claimed invention and the prior art." (Graham v. John Deere Co., 383U.S.17). The court admonishes in In re Fritch, 972F.2d1260 as follow:

"It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that "one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention."

The above arguments apply equally to the rejected dependent claims.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

The Commissioner is hereby authorized to charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,



Janik Marcovici
Reg. No. 42,841

5/18/05

Date

Perman & Green, LLP
425 Post Road
Fairfield, CT 06824
(203) 259-1800
Customer No.: 2512

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